Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (currently amended): An input detection device, comprising:

a button set circuit comprising a plurality of buttons utilized for inputting commands, each button outputting a ~~unique~~ voltage level that is different from the voltage levels of all of the other buttons when the button is activated;

a voltage generating circuit capable of outputting a plurality of generated voltage levels corresponding to the ~~unique~~ voltage levels outputted by each of the buttons in the button set circuit;

a plurality of input/output (I/O pins) for specifying which generated voltage level is output by the voltage generating circuit;

a comparator for comparing each of the generated voltage levels outputted from the voltage generating circuit with the voltage outputted from the button set circuit; and

a control circuit for controlling the voltage generating circuit with the plurality of I/O pins to alternately output each of the generated voltage levels, for recording the generated voltage level that is approximately equal to the voltage outputted from the button set circuit, and for determining which button in the button set circuit was activated based on the recorded generated voltage level.

2 (original): The input detection device of claim 1 wherein the control circuit records the highest generated voltage level that is lower than the voltage outputted from the button set circuit.

3 (original): The input detection device of claim 1 wherein the control circuit records the lowest generated voltage level that is higher than the voltage outputted from the

button set circuit.

4 (original): The input detection device of claim 1 wherein the I/O pins are general purpose I/O (GPIO) pins.

5 (currently amended): The input detection device of claim 1 wherein the ~~unique~~ voltage level associated with each button is greater than the ~~unique~~ voltage level associated with a preceding button by a factor of two and is less than the ~~unique~~ voltage level associated with a succeeding button by a factor of two.

6 (original): The input detection device of claim 1 wherein when two or three buttons are pressed simultaneously, the input detection device determines that the button having a highest priority was activated.

7 (currently amended): The input detection device of claim 6 wherein the button outputting the largest ~~unique~~ voltage level has the highest priority.

8 (currently amended): The input detection device of claim 1 wherein n+1 I/O pins <u>are utilized to detect</u> ~~are capable of detecting~~ which button of up to 2^n buttons was activated, n being a positive integer.

9 (currently amended): A method of detecting input commands, comprising:

providing a button set circuit comprising a plurality of buttons utilized for inputting commands, each button outputting a ~~unique~~ voltage level <u>that is different from the voltage levels of all of the other buttons</u> when the button is activated;

activating at least one button in the button set circuit, thereby outputting a voltage from the button set circuit;

outputting a plurality of generated voltage levels corresponding to the ~~unique~~ voltage

levels outputted by each of the buttons in the button set circuit;

comparing each of the generated voltage levels with the voltage outputted from the button set circuit;

alternately outputting each of the generated voltage levels;

recording the generated voltage level that is approximately equal to the voltage outputted from the button set circuit; and

determining which button in the button set circuit was activated based on the recorded generated voltage level.

10 (original): The method of claim 9 wherein recording the generated voltage level that is approximately equal to the voltage outputted from the button set circuit comprises recording the highest generated voltage level that is lower than the voltage outputted from the button set circuit.

11 (original): The method of claim 9 wherein recording the generated voltage level that is approximately equal to the voltage outputted from the button set circuit comprises recording the lowest generated voltage level that is higher than the voltage outputted from the button set circuit.

12 (currently amended): The method of claim 9 wherein the ~~unique~~ voltage level associated with each button is greater than the ~~unique~~ voltage level associated with a preceding button by a factor of two and is less than the ~~unique~~ voltage level associated with a succeeding button by a factor of two.

13 (original): The method of claim 9 wherein when two or three buttons are pressed simultaneously, determining that the button having a highest priority was activated.

14 (currently amended): The method of claim 13 wherein the button outputting the largest

~~unique~~ voltage level has the highest priority.

15. (new): An input detection device, comprising:

a button set circuit comprising a first button and a second button, the button set circuit outputting a first voltage level when the first button is activated, the button set circuit outputting a second voltage level when the second button is activated, the first voltage being different from the second voltage level;

a voltage generating circuit for outputting a first reference voltage level and a second reference voltage level, the first reference voltage level being approximately equal to the first voltage level, and the second reference voltage level being approximately equal to the second voltage level;

a comparator comparing each of the first and second reference voltage levels with the voltage outputted from the button set circuit; and

a control circuit controlling the voltage generating circuit to sequentially output the first and the second reference voltage levels, and determining which button in the button set circuit is activated based on a result outputted from the comparator when the first and the second reference voltage levels are sequentially applied to the comparator.

16 (new): The method of claim 15 wherein the first voltage level and the second voltage level differ by a factor of two.

17 (new): The input detection device of claim 15 wherein when the first and second buttons are pressed simultaneously, the input detection device determines that the button having a highest priority was activated.

18 (new): The input detection device of claim 17 wherein the button outputting the largest voltage level has the highest priority.